



HRW

PTO/SB/21 (04-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/707,744
	Filing Date	January 8, 2004
	First Named Inventor	Sugar et al.
	Art Unit	2685
	Examiner Name	Edward F. Urban
Total Number of Pages in This Submission	Attorney Docket Number	COG-2-0977.02.US

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Form PTO-1449 w/ copies of seventeen (17) references
<input checked="" type="checkbox"/> Supplemental Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Jeffrey M. Glabicki Reg. No. 42,584
Signature	<i>Jeffrey M. Glabicki</i>
Date	August 3, 2005

CERTIFICATE OF TRANSMISSION/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.	
Typed or printed name	Jeffrey M. Glabicki
Signature	<i>Jeffrey M. Glabicki</i>
Date	August 3, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Sugar et al.

Application No.: 10/707,744

Confirmation No.: 1743

Filed: January 8, 2004

For: MULTIPLE-INPUT MULTIPLE-
OUTPUT RADIO TRANSCEIVER

Group: 2685

Examiner: Edward F. Urban

Our File: COG-2-0977.02.US

Date: August 3, 2005

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to Applicants' Duty of Disclosure pursuant to 37 C.F.R. §1.56, Applicants wish to bring to the Examiner's attention the material cited on the enclosed PTO-1449 form. Newly cited documents are indicated by an asterisk (*). Copies of the newly cited documents are enclosed.

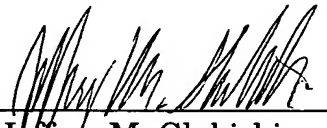
Pursuant to 37 C.F.R. §1.98(a)(2)(ii), copies of the cited U.S. publications and/or patent documents have not been included. Copies of previously cited documents are also not included.

Applicant: Sugar et al.
Application No.: 10/707,744

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the PTO-1449 form indicating his consideration of the cited materials.

Respectfully submitted,

Sugar et al.

By 
Jeffrey M. Glabicki
Registration No. 42,584
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

JMG/ks
Enclosures (18)

FORM PTO-1449				ATTY. DOCKET NO. COG-2-0977.02.US		SERIAL NO. 10/707,744	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)				APPLICANT Sugar et al.			
				FILING DATE January 8, 2004		GROUP 2685	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	*	4,150,344	04/1979	Fenk			
	*	4,263,676	04/1981	Liebel			
	*	4,310,809	01/1982	Buck et al.			
		4,580,289	04/1986	Enderby			
	*	4,696,055	09/1987	Marshall			
	*	4,905,306	02/1990	Anderson			
	*	5,150,085	09/1992	Hales			
		5,220,688	06/1993	Tao			
	*	5,548,825	08/1996	Maemura et al.			
	*	5,579,341	11/1996	Smith et al.			
		5,606,736	02/1997	Hasler et al.			
		5,715,529	02/1998	Kianush et al.			
		5,752,169	05/1998	Hareyama et al.			
		5,758,265	05/1998	Okanobu			
		5,832,375	11/1998	Leisten et al.			
	*	5,859,854	01/1999	Reudink			
		5,878,332	03/1999	Wang et al.			
		5,966,666	10/1999	Yamaguchi et al.			
		5,974,306	10/1999	Hornak et al.			
	*	6,094,084	07/2000	Abou-Allam et al.			
	*	6,097,269	08/2000	Hernandez			
		6,125,266	09/2000	Matero et al.			
	*	6,151,354	11/2000	Abbey			
	*	6,157,822	12/2000	Bastini et al.			
	*	6,215,988	04/2001	Matero			
	*	6,239,645	05/2001	Tsukahara et al.			

EXAMINER	DATE CONSIDERED
----------	-----------------

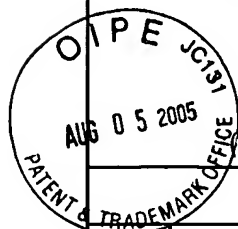
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449				ATTY. DOCKET NO. COG-2-0977.02.US		SERIAL NO. 10/707,744	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				APPLICANT Sugar et al.			
				FILING DATE January 8, 2004		GROUP 2685	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)							
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		6,252,548	06/2001	Jeon			
		6,259,895	07/2001	Yoshikawa et al.			
		6,282,413	08/2001	Baltus			
	*	6,285,720	09/2001	Martone			
		6,351,502	02/2002	Zargari			
	*	6,359,923	03/2002	Agee et al.			
	*	6,377,631	04/2002	Raleigh			
	*	6,381,471	06/1999	Dvorkin			
	*	6,456,833	11/1999	Sessink			
	*	6,473,467	10/2002	Wallace et al.			
		6,477,148	11/2002	Gardenfors et al.			
	*	6,529,719	03/2003	Imbornone et al.			
	*	6,542,724	04/2003	Copeland et al.			
	*	6,549,096	04/2003	Groves et al.			
	*	6,553,216	04/2003	Pugel et al.			
	*	6,766,149	07/2004	Hikita et al.			
	*	6,771,706	08/2004	Ling et al.			
	*	2001/0011013	08/2001	Vorenkamp et al.			
		2001/0015994	08/2001	Nam			
	*	2001/0036818	11/2001	Dobrovlny			
	*	2002/0077070	06/2002	McNamara et al.			
	*	2002/0150173	10/2002	Buda			
	*	2002/0164963	11/2002	Tehrani et al.			
	*	2002/0165626	11/2002	Hammons, Jr. et al.			
	*	2002/0173337	12/2002	Hajimiri et al.			

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. COG-2-0977.02.US	SERIAL NO. 10/707,744
	APPLICANT Sugar et al.	
	FILING DATE January 8, 2004	GROUP 2685



U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	*	2002/0177447	11/2002	Walton et al.			
	*	2003/0002604	01/2003	Fifield et al.			
		2003/0035491	02/2003	Walton et al.			
	*	2003/0076797	04/2003	Lozano			
	*	2003/0076908	04/2003	Huang et al.			
	*	2003/0207668	11/2003	McFarland et al.			
	*	2003/0223391	12/2003	Malaender et al.			
	*	2004/0017847	01/2004	Alberth, Jr. et al.			
	*	2004/0204036	10/2004	Yang			
	*	2004/0234012	11/2004	Rooyen			
	*	2004/0252632	12/2004	Bourdoux et al.			
	*	2005/0009476	01/2005	Wu et al.			
	*	2005/0020298	01/2005	Masumoto et al.			
	*	2005/0042997	02/2005	Steele et al.			
	*	2005/0047384	03/2005	Wax et al.			
	*	2005/0123025	06/2005	Sorrells et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	*	03/092997	11/2003	WO				
	*	0 823 790	02/1998	EP				
	*	H11-46113	02/1999	JP			X**	
	*	2000-188522	07/2000	JP			X**	
	*	2001-024569	01/2001	JP			X**	
	*	2001-285114	10/2001	JP			X**	

** Abstract Only

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449				ATTY. DOCKET NO. COG-2-0977.02.US		SERIAL NO. 10/707,744	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				APPLICANT Sugar et al.			
				FILING DATE January 8, 2004		GROUP 2685	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)							
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	*	2002-26462	01/2002	JP			X**
	*	2003-244045	08/2003	JP			X**
	*	2003-283359	10/2003	JP			X**
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	*	"Fodus Delivers 802.11B/G and 802.11B/A/G WLAN Total Solutions", http://www.fodus.com/DOCS/2003-09-15%20Fodus%20Press%20Release.htm , September 15, 2003.					
		"Parkervision Announces Successful Development of Most Integrated High Performance Wireless LAN Transceiver Chips Current Available", July 30, 2002.					
		"Single Chip Bluetooth Radio Transceiver", STMicroelectronics, 2001, (2 pages).					
		Behbahani et al., "An All CMOS, 2.4 GHz, Full Adaptive, Scalable, Frequency Hopped Transceiver", University of California, Los Angeles, Integrated Circuits & Systems Laboratory, date unknown.					
	*	Brodersen, "BWRC Status", Summer 2002 Retreat Presentations, Berkeley Wireless Research Center, June 3, 2002.					
	*	Cabric et al., "RF Front-End for MCMA Systems", Summer 2002 Retreat Presentations, Berkeley Wireless Research Center, June 3, 2002.					
		Cho et al., "Multi-Standard Monolithic CMOS RF Transceiver", University of California, Berkeley, January 8, 1996, (1-26).					
	*	Clarke, "Chip Set Bridges 802.11a and .11b Wireless LANs", EETimes.com, http://www.eetimes.com/showArticle.html?articleID=10809297 , September 24, 2001.					
		Copeland et al., "5GHz SiGe HBT Monolithic Radio Transceiver with Tunable Filtering", IEEE Trans. On Microwave Theory and Techniques, February 2000, Vol. 48, No. 2.					

** Abstract Only

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		ATTY. DOCKET NO. COG-2-0977.02.US	SERIAL NO. 10/707,744
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Sugar et al.	
		FILING DATE January 8, 2004	GROUP 2685
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	*	Ellingson et al., "An 8-Element Dual-Frequency Array Receiver for Propagation Measurements Near 2.4 GHz", The Ohio State University ElectroScience Laboratory, July 2001.	
		Gozali et al., "Virginia Tech Space-Time Advanced Radio (VT-STAR)", Proceedings, Radio and Wireless Conference (RAWCON), 2001.	
		Lantz, "A 5GHz, SiGe, Monolithic WLAN Transceiver", PCC Workshop, 1999.	
	*	Long, "A Low Voltage 5.1-5.8 GHz Image-Reject Downconverter RF IC", IEEE Journal of Solid State Circuits, Vol. 35, No. 9, September 2000, pp. 1320-1328.	
	*	Macedo et al., "A 1.9-GHz Silicon Receiver with Monolithic Image Filtering", IEEE Journal of Solid-State Circuits, Vol. 33, No. 3, March 1998, pp., 378-386.	
		Madihian et al., "A 5 GHz-Band Multifunctional BiCMOS Transceiver Chip for GMSK Modulation Wireless Systems," IEEE Journal of Solid-State Circuits, Vol. 34, No. 1, January 1999.	
	*	Nikolic, "From Algorithms to Systems-on-a-Chip in a Semester", BWRC Winter 2001 Retreat, Berkeley Wireless Research Center, January 8, 2001.	
		PV-1000Hb 802.11b RF Transceiver Product Specification, 2002, pp. 1-11.	
		Rudell et al., "Highly Integrated Transceiver Architectures for Adaptive RF Communications", University of California, Berkeley, date unknown.	
		Rudell et al., "Recent Developments in High Integration Multi-Standard CMOS Transceivers for Personal Communication Systems", 1998 International Symposium on Lower Power Electronics, Monterey, California.	
		Rudell et al., "Second Generation Multi-Standard Monolithic CMOS RF Transceiver", University of California, Berkeley, June 16, 1996.	

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.